# On Learning to Heal

OR,

WHAT MEDICINE DOESN'T KNOW

ED COHEN

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CRITICAL GLOBAL HEALTH: Evidence, Efficacy, Ethnography
*A series edited by Vincanne Adams and João Biehl*

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Oh, my body, make of me a man who always questions!
—FRANTZ FANON, *Black Skin, White Masks* (1967 [1952])

"Free Your Mind and Your Ass Will Follow"
—GEORGE CLINTON (1970)

To those from whom I have ever learned anything,
with my deepest gratitude

*Contents*

# *Prologue: Invoking Healing*

One must not forget that recovery is brought about not by the physician, but by the sick man himself. He heals himself, by his own power, exactly as he walks by means of his own power, or eats, thinks, breathes, and sleeps.—GEORG GRODDECK, *The Book of the It*, LETTER 32

Much of *On Learning to Heal* was written during the first year and a half of the SARS-CoV-2/COVID-19 pandemic. This coincidence made me acutely aware that neither the word nor the concept of healing (if not the process itself) seemed especially relevant to how we think about this catastrophic event. While politicians and public health officials did not hesitate to recruit war imagery to describe the pandemic—whether characterizing the virus as "the enemy" or representing the scenes in hospitals as "battlefields"—almost no one seemed to consider that healing might offer another possible way to think about our situation. Certainly, media reports assiduously chronicled the heroic efforts by health care providers to support those severely afflicted with the symptoms propagated by the novel (and probably zoonotic) coronavirus. Indeed, during the first months of the COVID-19 pandemic, choruses of clapping, cheering, drumming, and trumpeting regularly started every evening at 7 p.m. in recognition and appreciation of these efforts, not only in my Brooklyn neighborhood but in neighborhoods around the world. This daily anthem offered a sonic tribute to those who toiled, often in underequipped and overcrowded circumstances, to keep the people most afflicted by the effects of SARS-CoV-2 infections alive.

I live around the corner from a large hospital, run by one of New York's major hospital corporations, so it seemed fitting that my neighbors exuber-

antly expressed their appreciation for the "frontline workers" we saw coming and going past the refrigerated morgue trucks. This sonic ritual, echoed across the globe, recognized in a mundane way something that actually goes on all the time, albeit not always with the same degree of public appreciation: very sick people who require support to go on living receive the active attention of others—at least if it's available and they can afford it. In the case of COVID-19, these acts of attention appeared especially courageous, not only because a deluge of critically ill people, each one a potential vector for the highly contagious virus, easily overwhelmed hospitals but also because so little was known either about the virus or about how to treat it. As medical personnel struggled—frequently without proper personal protective equipment—to improvise new ways to respond to the multiple life-threatening impairments that can follow a SARS-CoV-2 infection, they valiantly exposed themselves to the viral contagion in the service of caring for others whose lives hung in the balance.

However, as much as these efforts deserve our gratitude and respect, something else very important to sustaining life—indeed, something without which no life would ever be sustained—goes unnoticed when we focus our praise exclusively on those who staff our hospitals, no matter how courageous they may be. The fact is that every single person who has contracted COVID-19 and recovered, no matter how much medical intervention they benefited from, has done so because they have an intrinsic capacity to heal. As Georg Groddeck reminded us in the early years of modern medicine, before almost any of its currently effective protocols existed, if we heal, we do the healing, even if we depend on others to assist us. Yet this healing capacity has remained almost entirely unnoticed and unacknowledged in our thinking about the pandemic. Healing is one of the essential tendencies of all living organisms, and without it none of us would still be alive. Unfortunately, when we focus so intently on medicine as a (potentially) curative technology, we often neglect to acknowledge that all medicine can ever do is support and encourage this vital potential. Medicine does not and cannot heal us. Skilled care provided by clinicians, nurses, radiologists, lab workers, respiratory therapists, physical therapists, dialysis technicians, nursing assistants, dieticians, porters, cleaners, and so on, no doubt maintains and sustains the lives of many critically ill patients, including those struggling with COVID-19-related symptoms. Yet it is important to remember: healing doesn't actually travel from the outside in, because whatever can be done *to* us depends on the potential to heal that lives *within* us. Others can support and

encourage this capacity, but they do not and cannot make it happen. Of course, because there were no specific treatments for the new disease at the time, those caring for people with COVID justifiably deserve our highest esteem. Still, even given these trying circumstances, healing itself might deserve some praise as well—which is what this book tries to give it.

# *Acknowledgments*

It took a lot of learning and a lot of healing to write this book on learning to heal—which is just another way of saying it required a lot of encouragement and support. If I've learned anything from this project, it's that although learning and healing constitute tendencies to which we can aspire, they aren't certainties by any stretch of the imagination. That's why we need other people to keep us tending in the right direction. Fortunately for me, I had a lot of help staying on track.

This book would not exist without what I have learned from my beloved teachers: Rachel Remen, Emilie Conrad, Susan Harper, Carol Joyce, Mary Swanson, and Mayla Riley. From each of you I learned how to stay rooted and grow strong—if not wise—at the same time. You each helped me cultivate vital energies that I didn't even know existed, and I bow in gratitude to your wisdom and your love.

My extended pod created a nourishing context in which I could ruminate on healing as well as heal, never an easy task, especially in the midst of the COVID-19 pandemic. Their ongoing enthusiasm for this project made it possible to finally finish even when it looked like we might all be going to hell in a handcart. Big props to Emma Bianchi, Ellen Bruno, Maria Damon, David Eng, David Kazanjian, Michael Lighty, Ardele Lister, Rebecca Mark, Jennie Portnof, Teemu Ruskola, Josie Saldana, and Caroline Streeter for all the love and laughs.

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Because spending hours and hours hunched over a computer has never been very healing for any body, I have been very fortunate to have genius somatics practitioners who have helped bend me back into shape. Major thanks to Marcelo Coutinho, Ariel Kiley, Joe Spilone, and Farrel Duncan for helping me recover from writing this book on a regular basis.

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Thanks to Ken Wissoker for including me in Duke's impeccably curated list. It's an honor to appear in such great company again. Thank you to all the people at Duke who make such beautiful books (and make making them so easy on their authors): Ryan Kendall for facilitating the curation process; Lisa Lawley for masterfully overseeing the production; Courtney Leigh Richardson for such a beautiful cover and wonderful layout, and for graciously accepting the rod of Asclepius as a design constraint; and the aptly named Laura Sell for helping disseminate this book as widely as possible.

And in memoriam: to Chunky and Monkey, whose feline love kept my lap warm throughout this project.

## *A Note on Shit*

This book uses the word *shit* an inordinate number of times. Some people may find that troubling. To them I apologize in advance and as consolation offer the following insight gathered from the French philosophers Gilles Deleuze and Félix Guattari: "Only the mind is capable of shitting."[1]

# Overture

## HEALING AS DESIRE AND VALUE

Knowledge does not necessarily emanate from transcendence . . . but from concatenations of the imaginary and desires.—HENRI ATLAN, "Knowledge of Ignorance" (2011)

When I might have needed it most, I had no idea that something like healing could happen. Indeed, I might never have known about healing if it hadn't bitten me in the ass. After I was diagnosed with Crohn's disease at the age of thirteen, I assumed that I would always bear its stigmata. My doctors told me that there was no cure for Crohn's and that probably the best I could hope for was to manage my symptoms medically for the rest of my life. If I were lucky, they said, I might experience periods of remission but I could never expect it to go away entirely. Alas, I wasn't so lucky. Instead of experiencing remissions, over time my symptoms just got worse. I lived with this bleak prognosis for over a decade, and it thoroughly infected my youthful fantasies about the future—not in a good way. Then, in my early twenties, I got really sick and almost died. But miraculously, I didn't, and afterward I actually started getting better. This entirely unexpected turn of events, which I recount in the following chapters, animates the deep appreciation for healing that inspires this book. Healing came to me unbidden, because I had no idea that I could call upon it, let alone how I might do that. I certainly never imagined that I could learn to heal or that

learning had anything to do with healing. Yet when I felt its first sparks ignite in me while lying on my bed in the ICU, healing definitely caught my attention. Months afterward, when I had recovered enough physically, though not yet psychically or spiritually, I started to realize that in order to tend the flame those sparks had ignited, I would need to learn both to desire healing and to value it—something I've been trying to do for the last four decades. This book traces that learning curve.

During the most acute phase of my illness, chronicled in chapter 1, I spent several months in Stanford University Hospital. After my release, I attempted to go back to life as I had known it. I was a graduate student at the time, living with others from my cohort in a collective house in Palo Alto. A friend of mine, Gonzalo, was living on his own across town in a little cottage on Perry Lane. Tom Wolfe had made Perry Lane famous in *The Electric Kool-Aid Acid Test* as "Arcadia just off the edge of Stanford golf course." In the early 1960s, Ken Kesey wrote *One Flew over the Cuckoo's Nest* in one of the small cabins that lined the street, and it soon became renowned as an enclave for the gestating '60s counterculture as well as the epicenter of the early LSD experiences that soon took America by storm. By the time Gonzalo rented one of the Perry Lane shacks in 1982, that scene was long gone, but its vibrations definitely lingered, even without the psychedelics. Because he was going to visit his family in Peru over Christmas vacation, Gonzalo offered me the place in his absence. This would be my first chance to spend any time alone since my extended hospital odyssey, and I relished the idea of having a bit of solitude to reflect on what I'd just been through. Needless to say, when you're critically ill in the hospital, there isn't much solitude, let alone space for reflection.

During my first few days on Perry Lane, I grooved in a nice rhythm, waking up at midday and then drinking two cups of tea and eating three pieces of Ryvita with peanut butter and apricot jam while sitting on the back steps. (I still have this breakfast around noon every day—often sitting in my garden—which is why I can remember it.) Reading. Getting a little stoned. Listening to music. Taking a bike ride through the back streets of Menlo Park. Napping. Having a late afternoon snack. And then, just before sunset, wandering along the Arcadian paths between Perry Lane and Stanford's golf course. Trees have always embraced me. I grew up in a small town in northern Maryland, which was incredibly lush, and our house was completely sheltered by trees. A towering sycamore erupted from the middle of our driveway, and a magnificent five-trunked maple behind the house hosted our forts and secret clubs. Beyond the cow pasture that abutted our yard was a little wood with a stream running through it, where we would hunt for frogs and crayfish. From an early age, trees

offered me refuge when I needed it. They were my friends. So when I needed to find myself again after my return to the land of the living, the trees at the end of Perry Lane beckoned me.

One evening as I was making my way through these woods, I was suddenly stopped in my tracks. My feet seemingly had rooted into the soil, and something vital was flowing up into me from the earth. At first I felt a deep stillness, as if all sound had fallen away, but then something shifted. It wasn't as if I heard someone speaking, but I apprehended a very clear message that seemed channeled by the trees. It wasn't in words exactly, but I couldn't mistake the meaning: either I could keep following the path I'd been on since my diagnosis a decade earlier, which would only lead me back through acute illness—and perhaps again to near-death—or I could learn new ways to live. Even though the notion that trees could directly communicate wisdom violated every precept I had been brought up to believe, I immediately understood that I needed to pay attention to this message.

Obviously, I knew trees can't actually talk to people, yet I had no idea where the message could have come from except from the trees. I no longer question the wisdom of trees. In fact, I often tell my students the story of the Buddha's enlightenment under the Bodhi tree, where—as all the forces of illusion arrayed against him threatening him with annihilation—he simply turned his thumb down to touch the earth without breaking his meditation and called upon it to witness his right to exist. Instantly, all illusions vanished and the Buddha achieved enlightenment. Where do you think he learned that, I ask my students, except from the Bodhi tree, which had been whispering in his ear all along as he sat beneath it? Some people say that trees are the most spiritual beings because they give so unstintingly of themselves. I don't know if that's true, though it seems likely; what I do know is that standing in the middle of those trees that evening, I realized that something in me knew how to heal and that if I didn't want to keep living from one crisis to the next, I'd need to learn to cultivate that capacity.

None of my myriad medical encounters had prepared me for this epiphany. Au contraire, medicine's genius lay in keeping me alive, in helping me sustain myself in the midst of a chronic condition that it had no means to heal, let alone cure. In fact, healing never figured into the picture my doctors sketched for me about the probable trajectory of my disease's progression. Thus, they had no explanations for why I had swerved so precipitously away from death, so soon after I had swerved so perilously close to it. Yet the trees seemed quite emphatic that they had important insights to offer on this point, and I can retrospectively affirm that they knew what they were talking about! Once I started

to take their message to heart, my life began to change rapidly. I began to discover teachers about whom I'd previously had no inkling and toward whom I probably would have had no inclination but who, once I encountered them, helped me learn to heal more consciously and consistently. This book honors those teachers by trying to disseminate the seeds of their teachings as they have grown within me. Indeed, through these encounters, I gradually began to discern that healing, learning, and growing are all vital values, essential to life, and that they matter deeply, whether we realize it or not.

For many years, when I thought back to this inflection point in my illness narrative, I wondered why the trees had been so wise in this regard and why they had spoken to me. Only in the process of writing this book did a satisfactory answer present itself. In her memoir *God's Hotel*, the physician and historian of medicine Victoria Sweet suggested something that I'd never considered.[1] She tells the story of an acutely ill patient, Terry, a homeless Native American woman who was a sex worker and heroin addict, whose "miraculous healing" dramatically changed Sweet's ideas about how she practiced medicine. Although many doctors have witnessed such dramatic and improbable recoveries, most probably don't dwell on the inexplicable transformations that occasionally occur before their eyes. Even their astonishment in the face of such occurrences doesn't often revise their medical perspective. However, Sweet's did, by viewing Terry's recovery through the perspective of a twelfth-century German mystic, theologian, musician, and medical practitioner, Hildegard of Bingen. Hildegard first came into Sweet's life by way of a book that Sweet stumbled upon while searching for answers to questions about life and death that arose from her encounters with patients but for which her modern medical training had unfortunately not prepared her. Despite the extreme divergence between Hildegard's medieval mystical methods and Sweet's bioscientifically based education, she recognized something within Hildegard's orientation that enabled her to engage more effectively with the suffering of those who sought her help. Captivated by Hildegard's ethos, Sweet eventually undertook a PhD in the history of medicine, writing a dissertation on Hildegard and premodern medicine that became the basis for a wonderful book, *Rooted in the Earth, Rooted in the Sky*.

Eight centuries before modern medicine, Sweet tells us, Hildegard wrote two manuscripts, *Physica* and *Causae et Curae*, that compiled her wisdom about medical practice. The medicine of Hildegard's period was humoral, derived from ancient Greek and Roman thinking and based on a system of elements (earth, water, fire, air), qualities (hot, dry, wet, cold), and humors (blood, phlegm, black bile, and yellow bile), whose balances and imbalances ruled the conditions

of living bodies.[2] While Hildegard largely adhered to this framework, Sweet recognized another germinal element in Hildegard's writings that augmented her canonical humoralism. For, in addition to her spiritual and medical perspectives, which she always wove together, Hildegard evinced a reverence for the wisdom of plants. Given her context, this was not entirely surprising. Hildegard not only lived in an agrarian culture, in which daily life revolved around the natural cycles of cultivation, growth, and harvest, but she was also a healer-gardener, growing and tending much of the pharmacopoeia that she employed. Thus, in both her medical and mystical writings, she evoked a concept, *viriditas*, derived from the Latin *viridis*, meaning green, fresh, blooming, vigorous, verdant, abounding in green growth.[3] *Viriditas* for Hildegard indicated a state of greenness or "greening," and Sweet suggests that it might have represented "a precedent in older medical texts for a power related to plants that also stood for the body's ability to heal."[4]

Hildegard didn't invent *viriditas*. The concept had appeared both in Aristotelian natural philosophy about plants and in earlier Christian spiritual writings, but she adapted it to different ends. Taking the plant world for inspiration, Hildegard recognized an essential affinity between the vitality of living plant bodies and that of animal bodies. On one hand, this affinity made sense given the use of herbal remedies, which constituted a major part of the medieval pharmacopoeia. Plant medicine spoke directly to the *viriditas* in humans and encouraged its efflorescence. On the other, *viriditas* figured as a force that animated bodies, infusing them with vigor, health, and fertility. As Sweet describes it, for Hildegard, *viriditas* contained "both substance and power."[5] In this sense, it resonated with other concepts familiar to medieval medicine: *humidium radicale* (which Sweet describes as "radical moisture," the "'root,' or basic moisture from which a life begins"), *calor inatus* (the "inborn heat" that "provided the power for growth and maturation"), and the *vis medicatrix naturae* (the healing power of nature, akin to the Greek *phusis*, which invoked "the body's innate vigor or strength, the inborn power of the live body to maintain its integrity"). Yet, more than any one of them, for Hildegard *viriditas* encompassed all these possibilities, Sweet argues, because both plants and animals "were rooted in the same earth and subject to the same sky."

Needless to say, the convergence between Hildegard's orientation and Sweet's own medical practice occurred in a clinical setting where her encounter with Terry's unanticipated if not inexplicable healing revised Sweet's scholarly understanding of Hildegard's teachings. Sharing the story of Terry's recovery, Sweet declares that Terry "would show me what *viriditas* really meant."[6] I can't do justice to Sweet's account, so you should read it for yourself. However, the

bare bones (in this case literal) of Terry's story should suffice to make the point. No doubt Terry was among the most sexually, racially, and economically vulnerable Americans. She entered Sweet's universe at Laguna Honda Hospital in San Francisco, the last "almshouse in America," while recovering from transverse myelitis, which caused her to lose function of her arms and legs. During her extended rehabilitation, Terry would bounce back and forth between the hospital and the streets, abetted by her abusive boyfriend and her drug habit, each time returning in a more and more debilitated state. Eventually she developed a bedsore on her back that ripened into a festering open wound which threatened her life. Here's Sweet's description:

> Terry's bedsore was scary. She had no protection. Everything delicate and crucial in her body—bones, kidneys, spinal cord—was exposed and vulnerable to an environment full of danger, full of germs—to bacteria of all sorts and from every source, even the bacteria that live on and within our bodies. Giving antibiotics to try to prevent infection wouldn't protect her. I knew because germs would become rapidly resistant to them. And the bedsore was too big to graft, even if the surgeons agreed. It would have to heal on its own and that would take years.[7]

As Sweet suggests, at this point Terry had reached an impasse. Medicine had no more magic bullets to protect her. Either Terry's wound would heal from within, or she would die.

Of course, that didn't mean nothing could be done. As Sweet recounts, what Laguna Honda Hospital could give Terry was ongoing care that would support and encourage her going-on-living as the healing process took place. Sweet describes the gist of this caring as "removing obstructions to *viriditas*," as clearing away the impediments that prevented Terry's healing from flourishing within her.[8] Obviously, one of the main obstructions to her healing was the context in which Terry lived. A homeless, heroin-addicted sex worker living on the streets with an abusive partner doesn't have much that allows *viriditas* to take root. However, in Laguna Honda, where not only were her survival needs satisfied but she received respectful care, Terry's capacity to heal could begin to thrive. Not that it happened all at once. As Sweet explains, this was a long process, over two and a half years, so what Terry's healing also required was the gift of time.

Needless to say, healing is always a temporal process. Healing is a matter of time, and healing makes time matter—in this case quite literally, as Terry's wound gradually healed itself from the inside out, regenerating the cells and tissues whose degeneration and destruction had brought her to the edge of death. However,

as Sweet emphasizes, Terry's healing didn't only entail physiology. During the process, she was able to break up with her abusive partner, detox from her drug and nicotine use, and finally, when she was well enough, reunite with a brother from whom she'd been estranged, who took her in and assumed responsibility for her care. In Terry's case, Sweet shows, removing the obstacles to *viriditas*, tending and cultivating its potency, worked miracles, albeit slow ones.[9] It allowed the *vis medicatrix naturae* to manifest because it mattered. In Sweet's gloss, the *vis medicatrix naturae* doesn't simply mean the power of nature to heal us; rather, she suggests that it really names "'the remedying force of your own nature to be itself,' to turn back into itself when it has been wounded."[10]

The greening force of *viriditas*, along with the healing force of the *vis medicatrix*, gestures toward possibilities that modern medicine seems to have forgotten. Yet all of its efforts depend upon these forgotten and often neglected possibilities. Healing manifests itself all around us if we have eyes to see and minds to care. For example, Sweet's descriptions of Terry's healing wounds remind me of trees I have known. Despite lightning strikes, tornadoes, uprootings, fungal blights, and so on, trees can continue to grow, putting forth new shoots and leaves, filling in gaps in their own crowns as they reach toward the sun. Lost branches can resolve into scars. Cancers can exude as bulbous cankers. If a tree is well rooted, new growth can spring forth even when the main trunk is lost, as when logged old-growth redwoods send up fairy rings of progeny around an absent center. Healing, like growth and development, and perhaps like evolution, represents a natural propensity for all life. As modern humans we may no longer acknowledge this fact as much as we should, but that need not stymie our efforts. After all, among our many attributes, as humans we excel at learning, so perhaps we might simply need to make more effort to learn to desire and value healing in order to learn to heal.

*On Learning to Heal* seeks to revive our appreciation for healing not only as a natural resource but as a vital value, which for humans means a political and economic value as well as a biological one. Biologically speaking, to recognize healing as a value simply means that an organism takes its going-on-living as significant. Or, as Friedrich Nietzsche put it with his typical diagnostic power: "The standpoint of 'value' is the standpoint of conditions of preservation and enhancement for complex forms of relative life duration within the flux of becoming."[11] Disease and injury are always meaningful for a living organism. They represent challenges to vital functions that call an organism's living—or at least

its mode of living—into question. Thus, insofar as any life form tends, or intends, to go on living, healing partakes of the imperative that the seventeenth-century philosopher Baruch Spinoza called *conatus.*[12] In his *Ethics*, Spinoza defined *conatus* as a "striv[ing] to persevere in . . . being," where this striving represented "the actual essence of the being."[13] For Spinoza, *conatus* pertained to all beings, whether animate or inanimate. He held that all being is one—including God and nature—and objected to the pretension that humans are exceptional beings, as if we constitute a "kingdom within a kingdom."[14] This is probably also the case for all living beings. Life is not its own dominion, especially if biology continues geology by other means—as the Russian geologist/geochemist Vladimir Vernadsky argued and as global warming now confirms.[15] Yet, even so, animate beings express greater degrees of indetermination than inanimate ones. That is to say, while animate and inanimate beings always remain deeply entangled, animate beings multiply the range of variables with which they can engage, and these variations introduce more possibilities for how they interact with inanimate beings as well as other animate ones. As Henri Bergson put it, "The role of life is to insert some indetermination into matter. Indeterminate, i.e., unforeseeable, are the forms it creates in the course of its evolution. More and more indeterminate also, more and more free."[16]

Such unforeseeable possibilities introduce an element of choice or decision for living beings that, as far as we know, does not pertain to the nonliving. And whenever decisions enter into consideration—even when they remain nonconscious—they introduce occasions for judgment. Living beings must orient themselves toward or away from this or that vital variable (e.g., toward food, away from toxins; toward prey, away from predators), and these orientations necessarily require some criteria for evaluation. Such criteria, which seek to enhance an organism's going-on-being, are what we call values. Thus, it's no coincidence that our word *value* comes from a Latin term, *valere*, which means to be physically powerful or strong, have strength, have strength or wellness, be in sound health.[17] At its most basic—and most abstract—life is a value that manifests values because the going-on-living of any life form entails a decisive orientation toward those possibilities that enable it to persevere in its being.[18]

At a fundamental level, healing names an essential reparative capability that all organisms, including trees and humans, need to realize in order to go on living. Yet for humans, healing, like any vital value, also takes on other implications insofar as we can reflect upon them. As the historian, philosopher, and physician Georges Canguilhem reminds us, "The living human body is the totality of powers of an existent that has the capacity to evaluate and represent these powers to itself, their exercise and their limits."[19] The value contexts

that humans create expand the domains of possible interaction between the animate and inanimate. While other species always manifest values in their lives insofar as they go on living—hence, plants orient themselves toward the sun (heliotropism); bacteria orient themselves toward or away from chemical gradients (chemotaxis); and predatory animals orient themselves toward prey (predation)—we humans seem to expand our modes of valuation beyond our mere subsistence. As Alfred North Whitehead characterized it, our vital imperative as humans impels us "(1) to live; (2) to live well; (3) to live better."[20] Needless to say, this motive requires making choices that shape not just the fact of our living, but also the manner in which we live. Furthermore, directed by this impulse, we also establish modes of living that vary across time and place.

To speak of healing as a desire and a value, then, is to recognize not only that as humans we manifest an intrinsic potential for subsisting, for going on living, but that we can also cultivate a capacity for living in more life-enhancing ways. Ideally, this might be what politics and economics attempt to do. By focusing our attention and directing our decisions, our values can enable us to create new modes of living, to which we can aspire, because we desire to live otherwise than we currently do or can. And because as humans we always live both individually and collectively, these vital decisions—whether biological, political, or economic, if we can even distinguish these anymore—increasingly ask us to realize that healing represents a desirable value.

Alas, because our culture has largely neglected the value of healing, many of us don't recognize it as such. That was certainly my experience. *On Learning to Heal* chronicles the long and challenging process through which I learned both to desire healing and to heal—and perhaps learning to desire healing is itself a form of healing, or at least a step in that direction. By allowing myself to desire to heal, I began to learn to heal even as I learned that healing also entails embracing the possibility for growing and developing. Healing, growing, developing, learning, and evolving are often braided together. They all constitute vital values that can prompt us to extend our existence beyond subsistence, to desire that our lives might concern more than merely going-on-living. How this desire moves (in) us cannot be determined in advance because, like living, healing is an ongoing process—until it's not.

The subtitle of this book is *What Medicine Doesn't Know*. I mean no disrespect to medicine by pointing out that, by and large, medicine underappreciates what Henri Atlan calls our "knowledge of ignorance." In a short essay with this title,

Atlan, a philosopher trained in biophysics and medicine, brings his admiration for Spinoza's ethics to bear on his work as a bioscientist. Atlan's intent in this piece is clear: to remind those who practice science and especially bioscience (as well as those of us who rely on their insights) that while these practices are powerful and important, they remain limited both in principle and in fact. Addressing the restrictions that underwrite scientific and bioscientific practice, Atlan informs us that "today's science restricts itself to the enormous domain within which it is increasingly preoccupied with mastering artifacts born in the laboratories for the sole purpose of being mastered."[21] Indeed, the possibility of artifactually restricting "life" to the confines of a laboratory constitutes the condition of possibility for all contemporary bioscience and biomedicine.[22] (The apotheosis of "laboratory life" occurs in synthetic biology, which aims to create new, "better designed," forms of life.[23]) The results of such artifactual manipulation have certainly proved astonishingly effective, yielding life-saving and life-extending technologies and treatments unimaginable before the invention of the knowledge domain now claimed by the life sciences. Yet their very successes often tend to obscure their intrinsic limitations. Atlan, following Spinoza, recalls these limitations, not in order to diminish the significance of bioscientific insights, but in order to put them into perspective—a perspective that conceives knowledge in *and as* life.

If, as Michel Foucault admonishes us, "to form concepts is one way of living, not of killing life," Atlan places the production of bioscientific concepts within the limits that life imposes upon us.[24] In other words, he stresses that as living beings we can only ever apprehend a limited range of the phenomena that determine our lives: "our ignorance of the *totality* of determinations is part of natural reality *as much as the determinations themselves* because this ignorance produces effects—our behavior—different from what they would be if we had total knowledge of natural determinations. . . . Our ignorance of the totality of determinations is equivalent, *insofar as it matters to us*, to the *real* existence of indeterminations in nature."[25] In the medical arena, acknowledging the indeterminacy of knowledge as a real limit proves especially challenging because, when we approach medicine, we often desire not only that medicine knows what is wrong with us but also that it knows how to rectify this wrongness. However, our desires do not always correspond to our possibilities. Atlan emphasizes the limits of our capacity to know in order to remind us that our knowledge arises only within the ambit of our existence as living beings. In other words, knowledge cannot encompass the totality of our lives because it is at best partial (in all senses). Thus, it is also crucial to remember, as Atlan admonishes us, that "our behavior can be directed only *both by*

*what we know of our determinations and by the fact that we know we don't know everything."*[26]

My belated gratitude for Atlan's insight stems from my willful ignorance of my own ignorance. When I first entered the medical labyrinth devoted to the diagnosis and treatment of Crohn's disease, I had an overwhelming desire that my doctors know what was wrong with me. Of course, in some sense they did, because they were eventually able to correlate my symptoms with a recognizable category of pathology and to prescribe a powerful pharmacological regime that would suppress some of its more dire symptoms, at least for a while. However, in a larger sense, I would later come to learn, they didn't know that much at all. The causes of Crohn's disease, like all of the sixty to eighty other diseases considered to have autoimmune etiologies, remain elusive. Moreover, why Crohn's occurs, when it occurs, to those in whom it occurs, completely exceeds biomedical explanation. Again, this statement is not meant to impugn the knowledge that biomedicine does engender but rather to put it into another perspective—the perspective of a person diagnosed with this disease who has lived with it for almost half a century.

For the first decade or so of my life with Crohn's, I thoroughly imbibed the medical explanations for my illness. At the time of my diagnosis, I was given a very basic explanation of what Crohn's entailed from a gastroenterological point of view. I was told I had an autoimmune disorder and that I needed to take drugs that would tamp down my body's immune responses to my own tissues, which in my case primarily affected the lining of my small intestine. Because I didn't know enough to question this way of thinking, I took it on faith and relied on the treatments presented to me as if they constituted the entirety of available therapeutic possibilities. Hence, along with the pills my doctors prescribed, I also ingested their ways of thinking about my condition, as if their knowledge represented my truth.

Obviously, medicine doesn't oblige us to take its insights on faith, which is in part why it clings closely to science, whose truths supposedly derive from lab-based facts. Yet, much as medicine may rely on bioscientific knowledge to underwrite its practice, medicine itself is not strictly scientific, let alone a science, despite the recent efforts of evidence-based medicine to assimilate medicine's protocols to more scientific-seeming standards.[27] At some level medicine does know this, even if it consigns this knowledge of its ignorance to the small print as a way of limiting its legal liability. That's why, when I recently had a hip replacement operation, I had to sign a medical consent form that included the following disclaimer: "I understand that medicine is not an exact science." The thing is, while I do understand this, I'm not certain those who act in the name of

medicine always do. And in any case, scientific knowledge itself is never transparent to reality, as Atlan underscores: "Without sacrificing any rigor in predicting observable facts, we can choose among different theories the one (or the ones) favoring the norm that suits us. . . . The choice of theory will be an exercise in wishful thinking."[28] Until I started to become aware of the wishful thinking in which modern medicine partakes, I had no way to interrogate the effects of its explanations and therapies on my experiences. However, once I became attuned to thinking of medicine's knowledge as a historical and cultural artifact, itself an effect of the modern imagination more generally, I could begin to question the significance of its many unconscious assumptions.

As often happens to me, my timing in this attunement was both lucky and unfortunate. My most severe Crohn's crisis, as well as my miraculous healing from it, occurred over the spring and summer of 1982 and randomly coincided with the advent of the AIDS epidemic in North America. Thus, while AIDS unfortunately had a profound impact on my life as a young gay man living in San Francisco during the 1980s, it also, luckily for me (as well as for many others), sparked many intense critical reflections on the ways medicine made sense of the emergent pandemic. By 1987, it also gave rise to a political movement, ACT-UP (AIDS Coalition to Unleash Power), that not only recognized that medical knowledge always relies on (often unacknowledged) political assumptions but also demanded that knowledge engendered by people diagnosed as "living with AIDS" be valued as medically relevant.[29] From these historically specific engagements with medicine's limitations, I learned to consider that while biomedicine and bioscience have a panoply of possible resources—although not a monopoly on them—they don't always avail themselves of those resources in optimal ways. Thinking critically about HIV/AIDS not only taught me how to reflect on the values that medicine incorporates within its explanations but also revealed that only by reflecting on these values does it become possible to question the decisions medicine makes on our behalf when it deploys its knowledge to assuage our ills.[30]

Much of this book concerns the backstory of modern medicine. It seeks to disclose the desires and values that medicine incorporates on its way to becoming modern in order to consider whether they are necessary, let alone helpful. In order to do so, it traces one trajectory of thinking and practice that has come to dominate Western understandings of therapeutic action. In particular, it considers moments in medicine's history when certain assumptions about

what it means to be a living being become part of medicine's "reason"—in the double sense of its motive and its logic. By exploring these developments in medical thinking, *On Learning to Heal* attempts to illuminate the ways that medicine's investments in *knowing* "what's wrong with us" and how to "fix it" might have unnecessarily and unwittingly discouraged our capacity *to learn* to heal. Indeed, as the rest of the book emphasizes, medicine's insistence that such knowledge constitutes our paramount therapeutic resource is what has made medicine "medicine" ever since it differentiated itself from all other therapeutic practices twenty-five hundred years ago.

As medicine became increasingly accepted as the dominant therapeutic modality in Western cultures, especially over the last century and a half, other ways of assuaging illness came to seem less and less credible to more and more people. Indeed, medical authorities actively demeaned other therapeutic means as part of their market strategy, and it seems to have been extraordinarily successful (increasingly even in cultural contexts in which nonmedical forms of therapeutic intervention had prevailed). In the United States, this included the disparagement not only of nonorthodox or eclectic forms of medicine but also of the therapies developed by indigenous and (formerly) enslaved people as well as those characterized as "women's medicine" or "folk medicine."[31] Certainly, this observation does not diminish the astounding accomplishments of our medical knowledge.[32] Nor does it mean that "medicine" as such constitutes a homogeneous domain. Multiple practical knowledges inform different medical subspecialties; palliative care is different from family medicine is different from oncology is different from psychiatry is different from public health. Nevertheless, insofar as they claim legitimacy as forms of medicine, all these diverse medical practices partake of the same sets of authorization, training, and licensing requirements that instill a commitment to particular ways of knowing as their raison d'être (as chapter 3 elaborates). Paradoxically, however, as the claims made by, for, and upon medical ways of knowing have expanded, medicine's interests in healing, as a general phenomenon intrinsic to all living beings, have radically diminished in favor of concepts like treatment and cure. Moreover, as modern medicine has invented new therapies and technologies capable of modulating organic life at the level of our tissues, cells, and molecules (including the complex crystalline molecule we call DNA), we have tended to forget that these protocols work only insofar as they augment or support our own tendencies to heal at all these levels as well.

Of course, you might wonder: If this is the case, why don't we know it already? Or conversely, why do we give medicine so much credit for our own capacities? Why don't we honor the power to heal that each one of us manifests

so long as we go on living? If we are still alive (which, since you're reading this book, I'll assume you are), at some level we do know something about healing. All of us have myriad experiences of healing that we rely on all the time. When we cut a finger, we might disinfect it and put on a bandage, but our finger heals by itself, and not because we have any special knowledge of the biomechanics of tissue repair. The same can be said of any number of mundane experiences that we regularly survive, either with or without medical consultation. These might seem like trivial cases, yet even—or especially—the most intensive and invasive high-tech medical interventions depend on the same healing capacity. For example, when oncologists poison (chemotherapy), slash (surgery), or burn (radiation) us in order to treat cancer, they do so assuming that we have an intrinsic tendency to recover from these therapeutic aggressions.[33] If we didn't, these treatments would kill us, as indeed they sometimes do. Yet, in general, medicine doesn't much concern itself with supporting or encouraging our recovery from such assaults, outsourcing (or offloading?) this responsibility onto other forms of care.[34]

One of the reasons we don't pay as much attention to our own healing capacities as we might—or ought—is that we often rely on medicine to know something about our lives that we don't know ourselves. When we invest medicine with this authority, we can be seduced into thinking not only that it knows more than we do, or that its ways of knowing constitute the only ways of knowing, but also that it addresses the only things worth knowing. Nothing about medicine necessarily demands this compliance from us—although medicine does in fact evaluate patients' responses to prescribed treatments in terms of our compliance with them.[35] In doing so, it asks us to fold or bend with it (which is what *comply* means etymologically), if not to actually bow down before it. Yet, by and large, our compliance does not need to be coerced; much of the time, most of us willingly take what medicine has to offer without compulsion (anti-vaxxers notwithstanding). Insofar as we desire medicine to transform us, we readily take on—and take in—both its ways of knowing and its ways of not-knowing. And, since medicine frequently fails to "know its ignorance," as Atlan puts it, we in turn, with our passionate desires for its knowing ways to work, often fail to know its ignorance as well. However, if we begin to understand how medical knowledge became so compelling in the first place, perhaps we can discover ways to augment this knowledge by learning to attend to and encourage the capacity to heal that lives within us—as long as we're still alive.

To this end, *On Learning to Heal* makes a distinction between knowing and learning. Both are essential to our going-on-living, yet the former can often

impede the latter. If you think you already know, you might be less inclined to learn. Conversely, we can learn things that we do not and perhaps cannot know. To take a banal example—which is nonetheless very relevant to my story of living with Crohn's—as infants most of us learn to control our urination and defecation according to culturally prescribed patterns that, since the invention of the utility referred to as the toilet, we call "toilet training."[36] If we do not learn how to do this, or cannot do this, our lives will be severely compromised (as I learned from my extensive experiences with incontinence). Yet we do not necessarily know how we do this. Learning to control our sphincters until we find an appropriate place or time to release them requires incorporating an exquisite ensemble, not only of neuromuscular activities but also of psycho-cultural norms, whose underlying biochemistries and biophysiologies remain partially understood at best. As this mundane yet ubiquitous example demonstrates, knowing and learning can invoke different capacities, and the latter does not always entail the former. Learning to heal does not necessarily require us to know how we heal, but it does require that we desire to heal and that we actively value this possibility. In tracing my own learning curve about healing in this book, I am trying to suggest that when we take medicine's knowing ways for granted, we might unwittingly impede our ability to learn to heal, especially since healing has increasingly been rendered tangential to modern medicine's scientific aspirations.

Needless to say, over the last century and a half, medical knowledge has shored up its bona fides by situating its practice within the purview of science—even while acknowledging (as the consent form I had to sign before my hip surgery affirmed) that it is "not an exact science." Without question, medicine's pursuit of scientific rigor has led to wonderful, previously unimaginable treatment options. And because my own life has been saved by such options a number of times, I am definitely not one to gainsay these achievements. Yet, despite the patently productive alliances between medicine and bioscience, medicine's scientific inclination also introduces a significant problem as well, one that helps explain why healing has become much less central to it.[37]

Science as we know it constitutes itself as an authoritative discourse, that is, one that can legitimately claim to speak the truth, by disqualifying other ways of making sense as less true (if not false). Disqualification provides science with a means of regulating which explanations reside "within the true" and which do not.[38] This boundary maintenance requires that science distinguish between those methods appropriate to producing verifiable knowledge and those that it deems at best unreliable or at worst subjective. As a result, other ways of making sense of the world are discredited, consigned to the realm

of fantasy, magical thinking, hype, trickery, bias, and such. By establishing an excluded outside that it sees as beyond the pale, science attempts to purify its own procedures and keep them free of such contamination.[39] Michel Foucault thus describes the way that science seeks to purge the world of "a whole series of knowledges that have been disqualified as non-conceptual knowledges, as insufficiently elaborated knowledges: naïve knowledges, hierarchically inferior knowledges, knowledges that are below the required level of erudition or scientificity."[40] He names these excluded possibilities "subjugated knowledges"—types of knowledge that were banished from the scientific domain of "the true" (e.g., alchemy, witchcraft, spiritualism, herbalism, shamanism, midwifery) and whose exclusion conversely affirms scientific knowledge as true. In relation to modern scientific medicine, acupuncture, chiropractic, homeopathy, osteopathy, Ayurveda, hypnotherapy, bioenergetics, energy balancing, and kinesiology name just some of the monsters that continue to lurk beyond the simultaneously professional and commercial boundaries that scientific medicine establishes.

Nevertheless, such subjugated knowledges contain their own specific logics, languages, and efficacies, some of which have persistently resisted the limits of the dominant medical paradigms (homeopathy provides a prime example) as well as others that have recently begun to be tolerated as alternative and complementary medicines.[41] Foucault characterized these "disqualified" knowledges as representing "what people know . . . a particular knowledge that is local, regional, or differential, incapable of unanimity which derives its power solely from the fact that it is different from all the knowledges surrounding it . . . the non-commonsensical knowledges that people have, and which have in a way been left to lie fallow, or even kept in the margins."[42] *On Learning to Heal* seeks to recover and to value some of these excluded possibilities that lie fallow all around us in order to remind us that healing happens, and that while medicine might know some ways to enhance and augment this process, it does not have a monopoly on them. Moreover, it argues that until medicine appreciates healing as a vital tendency that lives in all of us, we might need not only to become aware of but also to learn to appreciate what medicine doesn't and probably can't know.

# *Notes*

## A NOTE ON SHIT

1. Deleuze and Guattari, *Anti-Oedipus*, 143.

## OVERTURE. HEALING AS DESIRE AND VALUE

1. Sweet, *God's Hotel*. I thank one of the anonymous readers for Duke University Press for turning me on to Sweet's work.

2. For a concise synthesis of the voluminous literature on humoralism, see Meloni, "Plasticity before Plasticity."

3. Logeion, s.v. "viridis," accessed June 17, 2020, https://logeion.uchicago.edu/viridis. On *viriditas* in Hildegard's mystical texts, see Marder, "On the Vegetal Verge."

4. Sweet, *God's Hotel*, 97; Sweet, "Hildegard of Bingen"; Logeion, s.v. "viriditas," accessed June 17, 2020, https://logeion.uchicago.edu/viriditas.

5. Sweet, *Rooted in the Earth*, 152–54.

6. Sweet, *God's Hotel*, 97.

7. Sweet, *God's Hotel*, 105–6.

8. Sweet, *God's Hotel*, 107.

9. Sweet, *Slow Medicine*.

10. Sweet, *God's Hotel*, 111.

11. Nietzsche, *Will to Power*, 380.

12. *Conatus* is a nominal form of the Latin verb *conor*, meaning to undertake, endeavor, attempt, try, venture, seek, aim, make an effort, begin. Logeion, s.v. "conor," accessed May 26, 2020, https://logeion.uchicago.edu/conor. It has been used for over two thousand years to try to conceptualize the self-persistence of both animate and inanimate beings.

13. Spinoza, *Ethics*, vol. 3, prop. 6 and 7, 283.

14. Spinoza, *Ethics*, vol. 3, preface. "Most of those who have written about the emotions [*affectibus*] and human conduct seem to be dealing not with natural phenomena that follow the common laws of Nature but with phenomena outside Nature. They appear to go so far as to conceive man in Nature as a kingdom within a kingdom" (277).

15. Vernadsky, *Biosphere*.

16. Bergson, *Creative Evolution*, 83. I return to Bergson's ideas in chapter 1.

17. Logeion, s.v. "valere," accessed May 30, 2020, https://logeion.uchicago.edu/valere.

18. Going-on-living is not necessarily always a paramount value, but if it is not, then the conditions of life can start to tend toward death.

19. Canguilhem, "Health," 472.

20. Whitehead, *Function of Reason*, 5.

21. Atlan, "Knowledge of Ignorance," 386.

22. While a far from uncontested category, biomedicine generally refers to the confluence of three trends that occurred in the wake of World War II: the tendency of the life sciences to focus inquiry at the level of molecules, the adoption of mathematical and especially computer-based modeling, and the linking of clinical practice to laboratory experimentation. Gaudillière, *Inventer la biomédicine*; Clarke et al., "Biomedicalization."

23. Roosth, *Synthetic*.

24. Michel Foucault, "Introduction," in Canguilhem, *Normal and the Pathological*, 21.

25. Atlan, "Knowledge of Ignorance," 388.

26. Atlan, "Knowledge of Ignorance," 389.

27. Deny, "Evidence-Based Medicine"; Derkatch, "Method as Argument."

28. Atlan, "Knowledge of Ignorance," 385.

29. Brier, *Infectious Ideas*.

30. For example, see Patton, *Sex and Germs*; Treichler, "AIDS, Homophobia, and Biomedical Discourse"; Watney, *Policing Desire*; Epstein, *Impure Science*.

31. Ehrenreich and English, *Witches, Midwives, and Nurses*; Fett, *Working Cures*; Savitt, *Race and Medicine*; Breslaw, *Lotions, Potions, Pills and Magic*.

32. Although we should also recognize that modern medicine often doesn't know why its treatments work; for example, millions of prescriptions for selective serotonin reuptake inhibitors (SSRIs) have been filled to treat depression, despite the fact that the biochemistry of affect and mood remain only vaguely understood.

33. The refrain "poison, slash, burn" accompanies the choreography of *Still/Here*, a 1994 work by Bill T. Jones based on interviews with people who were facing life-threatening illnesses. Bill T. Jones, *Still/Here*, 1994, New York Live Arts, https://newyorklivearts.org/repertory/stillhere/.

34. I was recently reminded of this during a presurgical appointment with the chief orthopedic surgeon at a famous New York hospital to discuss an upcoming hip replacement. After he finished explaining in exquisite technical detail the intricate dynamics of the operation and extolling the wonders of the titanium prosthetics he planned to implant in my body, I casually asked him if he had any suggestions about healing after the procedure. His reply was classic: "No," he said, "just go home, take the pain killers, and do the physical therapy exercises."

35. One of the first published conference proceedings on the topic defines compliance as "the extent to which the patient's behavior (in terms of taking medications, following diets, or executing other life-style changes) coincides with clinical prescription." Haynes and Sackett, *Compliance with Therapeutic Regimes*, 1. For an extended critique of the disciplinary effects of compliance as a strategy of medical governance, see Kane, *Pleasure*

*Consuming Medicine.* For a reflection on the idiom of compliance and some alternatives, see Fawcett, "Thoughts about Meanings of Compliance." As of June 7, 2021, Medline lists over 150,000 entries on the topic heading "compliance."

36. Although he does not refer to toilet training as such—instead simply demurring that he could elaborate innumerable facts about the "hygiene of natural needs"—Marcel Mauss underscores the cultural variation in all such techniques of the body. He argues that "these [corporeal] techniques are the human norms of human training [*dressage*]. These techniques which we apply to animals, humans voluntarily apply to themselves and their children. The latter are probably the first to have been thus trained [*dresser*]—before all other animals, which first had to be domesticated [*apprivoiser*]." Mauss, "Les techniques des corps," 16.

37. As early as 1936, the eminent medical historian Henry Sigerist proclaimed, "Medicine is not a branch of science, and it will never be. If medicine is a science, then it is a social science." Sigerist, "History of Medicine," 5.

38. In his inaugural lecture at the Collège de France, Michel Foucault elaborates this strategy of disqualification and boundary maintenance. He attributes the phrase "in the true" (*dans le vrai*) to Georges Canguilhem. Foucault, "Discourse on Language," 224.

39. Science and technology studies has invested a lot of effort in detailing such boundary maintenance procedures. See Gieryn, "Boundary-Work"; Gieryn, *Cultural Boundaries of Science*; Bazerman, *Shaping Written Knowledge*. In relation to bioscience, see Meyers, *Writing Biology*.

40. Foucault, *Society Must Be Defended*, 7.

41. The National Center for Complementary and Integrative Health was founded in 1991 as the Office of Alternative Medicine. It changed its name to the National Center for Complementary and Alternative Medicine in 1998 and to its current name in 2014. As these renamings indicate, the relation between "proper" medicine and its "others" is a shifting one. In any case, the NCCIH is the least funded of the National Institutes of Health and has been subject to constant criticism for its methods and goals ever since it was founded.

42. Foucault, *Society Must Be Defended*, 8.

## CHAPTER ONE. HEALING TENDENCIES

1. Neuburger, *Doctrine of the Healing Power*; Canguilhem, "Idea of Nature."

2. Normandin and Wolfe, *Vitalism and the Scientific Image*.

3. I'm happy to report that new forms of vitalism are emerging. Monica Greco's work represents one of the best examples. See Greco, "On the Art of Life"; Greco, "On Illness and Value."

4. Abram, "Mechanical and the Organic," 67.

5. Descartes, *Meditations on First Philosophy*, 58. Descartes had an abiding interest in health and illness—including if not especially his own—and in his correspondence professed a less rigid notion of the body. Shapin, "Descartes the Doctor."

6. Abram argues that this recentering of God as both lawmaker and animating force made mechanism more appealing to Church authorities than the preceding Renaissance worldview, which could tend toward heresy, as the execution of Giordano Bruno attests: "The mechanical philosophy became a central facet of the scientific worldview precisely